RANDOM SEARCH IN ENERGY MANAGEMENT STRATEGY (EMS) FOR HYBRID ELECTRIC VEHICLES

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Abstract.
The aim of this project is to optimize the total energy used (summation fuel and electricity) from vehicle utilization with the initial result in hybrid electric car (HEV) by using an optimization called Random Search Optimization. Nowadays, the developments of hybrid electric cars are not something new. There are a lot of research are being done on how to increase the effectiveness of hybrid electric cars. One of the main aspects that are being aim is to reduce the electricity consumption while increasing the HEV performance. This is for maintain or increase the HEV performance which is increase the efficiency. Thus, Random Search Optimization was applied to optimize the HEV source output which is from electricity system. This method also had already been applied to solve several other problems. But for HEV optimization more research is needed so that it can be applied for real HEV development in industry not for simulation purpose only.

Keywords: HEV, Random Search, optimization